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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,415	11/08/2001	Young Hwan Kim	P-0270	5245

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EXAMINER

PUENTE, EMERSON C

ART UNIT	PAPER NUMBER
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2113

3

DATE MAILED: 08/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,415

Applicant(s)

KIM ET AL.

Examiner

Emerson C Puente

Art Unit

2113

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7, 9-11, 13, 14, 16, 17, 19-21, 24, 26, 27, and 30 is/are rejected.
- 7) ☒ Claim(s) 5, 8, 12, 15, 18, 22, 23, 28 and 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is made Non-Final. Claims 1-30 have been examined.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3,6,7,9,10,13,14,16,17,19,21,24,26,27, and 30 are rejected under 35

U.S.C. 102(e) as being anticipated by US Patent No. 6,643,318 of Parsa et al. referred hereinafter “Parsa”.

In regards to claim 1, Parsa discloses a communication terminal, comprising:

an IF/RF unit that changes a radio frequency signal of received data into a received baseband signal and that changes a baseband signal of transmit data to a radio frequency signal for transmission within a packet (see figure 9 items 411-414 and 425-430 and column 13 lines 14-17, 60-62 and 36-39);

a receive unit detects a data signal from the received baseband signal outputted by the IF/RF unit (see figure 9 item 416-418 and column 14 lines 7-13);

a data matching unit that receives the data signal from the receive unit and matches data communicated between the communication terminal and an outer processing device (see figure 9 item 419-423 and column 8 lines 55-60);

a controlling channel supervising unit that controls a transmission electric power of the communication terminal, by detecting a controlling signal within the received baseband signal, and supervises a channel occupying status (see column 14 lines 40-45 and 55-60);

a starting point controlling unit that decides a transmission point of the transmit data and generates a corresponding transmission controlling signal (see column 14 lines 44-55); and

a sending unit that outputs the transmit data, which is received from the data matching unit, to the IF/RF unit based on the corresponding transmission controlling signal (see figure 9 item 424 and column 12 lines 65-67).

In regards to claim 2, Parsa discloses:

wherein the starting point controlling unit randomly sets a re-transmission point of the packet when a prior communication of the packet to a base station fails (see column 14 lines 60-63).

In regards to claim 3, Parsa discloses:

wherein the communication terminal does not transmit separate a preamble for accessing a base station in addition to a preamble contained within the packet (see column 10 lines 9-20).

In regards to claim 6, Parsa discloses:

wherein the sending unit suspends the transmission of the packet upon identifying the failure and the packet is allocated a random re-transmission point by the starting point controlling unit (see column 14 lines 60-63)

Art Unit: 2113

In regards to claim 7, Parsa discloses:

an IF/RF unit that changes a radio frequency signal of received data into a received baseband signal and that changes a baseband signal of transmit data to a radio frequency signal for transmission within a packet (see figure 9 items 411-414 and 425-430 and column 13 lines 14-17, 60-62 and 36-39);

a receive unit detects a data signal from the received baseband signal outputted by the IF/RF unit (see figure 9 item 416-418 and column 14 lines 7-13);

a data matching unit that receives the data signal from the receive unit and matches data communicated between the communication terminal and an outer processing device (see figure 9 item 419-423 and column 8 lines 55-60);

an error detecting unit that checks for an error signal in the received baseband signal inputted to the receive unit and generates a corresponding error controlling signal (see figure 9 item 421 and column 13 lines 33-37); and

a sending unit that outputs the transmit data, which is received from the data matching unit, to the IF/RF unit based on the corresponding error controlling signal (see figure 9 item 424 and column 12 lines 65-67).

In regards to claim 9, Parsa discloses:

wherein the communication terminal sets a re-transmission point randomly if a communication of the packet to a base station fails (see column 14 lines 60-63).

In regards to claim 10, Parsa discloses:

wherein the communication terminal does not transmit a separate preamble for accessing a base station in addition to a preamble contained within the packet (see column 10 lines 9-20).

Art Unit: 2113

In regards to claim 13, Parsa discloses a method of data transmission, comprising:
communicating data within a packet frame unit from a terminal to a base station (see column 8 lines 39-41);

transmitting a channel occupying signal from the base station to the terminal when data transmission from the terminal is perceived by the base station. Parsa discloses a “busy/idle” flag asserted logic true whenever a channel is busy (see column 7 lines 19-21 and column 9 lines 14-19);

continuing the communication of the packet data, while the channel occupying signal is active (see column 7 lines 19-25);

identifying whether the base station receives the communicated packet data (see column 7 lines 19-25); and

ending a process for communicating the packet data if the base station receives the communicated packet data (see column 7 lines 19-25).

In regards to claim 14, Parsa discloses

suspending the packet data communication and restarting the communication of the packet data to the base station, if the base station fails to perceive the packet data communication. Parsa discloses the access preamble is transmitted of duration T_p whose power is increased in time from preamble transmission to preamble transmission until the access preamble is perceived by the base station (see column 5 lines 29-36).

In regards to claim 16, Parsa discloses:

suspending the packet data communication and restarting the communication of the packet data to the base station if the base station fails to receive the communicated packet data.

Art Unit: 2113

Parsa discloses the access preamble is transmitted of duration T_p whose power is increased in time from preamble transmission to preamble transmission until the access preamble is perceived by the base station (see column 5 lines 29-36).

In regards to claim 17, Parsa discloses:

wherein the base station maintains the active channel occupying signal for the terminal until the packet data is successfully communicated to the base station (see column 7 lines 19-25).

In regards to claim 19, Parsa discloses:

wherein the terminal randomly sets a re-transmission point for restarting the communication of the packet data (see column 5 lines 20-36) .

In regards to claim 21, Parsa discloses a communication terminal, comprising:

a variable power transmission means for communicating transmit data (see column 10 lines 15-20);

a receiving means for communicating received data (see column 8 lines 40-45); and

a signal detection means for detecting a busy signal and an idle signal within the received data (see column 9 line 15-17),

wherein the signal detection means controls the variable power transmission means' power output, transmission timing, and ability to complete a communication of the transmit data, in response to the detected busy and idle signals. Parsa discloses using broadcast information to select a channel by the mobile station, indicating detecting a busy and idle signal (see column 10 lines 1-8). Parsa further discloses after selecting a channel, the mobile station enters the access phase, where the access preambles are transmitted in sequentially increasing power levels until one access preamble has been selected, indicating wherein the signal detection means controls

Art Unit: 2113

the variable power transmission means' power output, transmission timing, and ability to complete a communication of the transmit data, in response to the detected busy and idle signals (see column 10 lines 15-20).

In regards to claim 24, Parsa discloses:

wherein the variable power transmission means completes a current attempt to communicate the transmit data, when the signal detection means detects a transition from the idle signal to the busy signal and a subsequent transition from the busy signal to the idle signal during the current attempt to communicate the transmit data (see column 7 lines 19-25 and column 9 lines 15-20).

In regards to claim 26, Parsa discloses a communication system, comprising:

a variable power transmission means for communicating transmit data from a first terminal to a second terminal (see column 10 lines 15-20);

a receiving means for communicating receive data from the second terminal to the first terminal (see column 8 lines 40-45);

and a signal detection means for detecting a busy signal and an idle signal within the receive data (see column 9 line 15-17), wherein

the signal detection means controls the variable power transmission means' power output, transmission timing, and ability to complete a communication of the transmit data in response to the busy and idle signals generated by the second terminal and detected by the first terminal.

Parsa further discloses after selecting a channel, the mobile station enters the access phase, where the access preambles are transmitted in sequentially increasing power levels until one access preamble has been selected, indicating wherein the signal detection means controls the variable

Art Unit: 2113

power transmission means' power output, transmission timing, and ability to complete a communication of the transmit data, in response to the detected busy and idle signals (see column 10 lines 15-20).

In regards to claim 27, Parsa discloses a communication method, comprising:

communicating transmit data from a first terminal to a second terminal (see column 8 lines 40-45);

communicating receive data from the second terminal to the first terminal (see column 8 lines 40-45);

detecting a busy signal and an idle signal within the receive data (see column 9 line 15-17); and

controlling a power output, a transmission timing, and an ability to complete the communication of the transmit data in response to the busy and idle signals generated by the second terminal and detected by the first terminal. Parsa further discloses after selecting a channel, the mobile station enters the access phase, where the access preambles are transmitted in sequentially increasing power levels until one access preamble has been selected, indicating wherein the signal detection means controls the variable power transmission means' power output, transmission timing, and ability to complete a communication of the transmit data, in response to the detected busy and idle signals (see column 10 lines 15-20).

In regards to claim 30, Parsa discloses a communication method, comprising:

a current attempt to communicate the transmit data, when a transition from the idle signal to the busy signal and a subsequent transition from the busy signal to the idle signal are detected

Art Unit: 2113

during the current attempt to communicate the transmit data (see column 7 lines 19-25 and column 9 lines 15-20).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 11, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Parsa in view of Applicant's Admitted Prior Art referred hereinafter "AAPA".

In regards to claims 4, 11, and 20, Parsa discloses a preamble unit (see column 5 lines 25-30), but fails to explicitly disclose:

wherein the packet frame unit further comprises a CRC unit and a postamble unit.

However, AAPA discloses wherein the packet frame unit further comprises a CRC and a postamble unit (page 4 paragraph 16).

It would have been obvious to one of ordinary skill in the art at the time the invention was made wherein the packet frame unit further comprises a CRC and a postamble unit. A person of ordinary skill in the art would have been motivated because Parsa discloses PCPCH transmission (see figure 4 and column 4 lines 5-6) and AAPA discloses it is well known in PCPCH transmission to transmit CRC and postamble unit.

Allowable Subject Matter

Claim 5,8,12,15,18, 22,23,28, and 29 would be allowable if rewritten to overcome any claim objection set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 25 is allowable.

Examiner's Statement of Reason for Allowance

The following is an Examiner's statement of reasons for the indication of allowable subject matter: Claim 25 is allowable over the prior art of record because the Examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any of the said prior arts.

The reason for allowance for claim 25 is the inclusion of the transmission means communicates the idle signal in the transmit data when the detected quality of the received data is below a first threshold value, the transmission means communicates the busy signal in the transmit data when the detected quality of the received data is equal to or above the first threshold value, and the transmission means communicates the idle signal in the transmit data when the detected quality of the received data is above a second threshold value and the communication of the transmit data is completed in conjunction with the rest of the limitation set forth in the claim.

The remaining claims, not specifically mentioned, are allowed because they are dependent upon one of the claim mentioned above.

Art Unit: 2113

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

See Form PTO-892.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emerson C Puente whose telephone number is (703) 305-8012. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5631.

Emerson Puente

7/30/04


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